

DWQMS Workshop

Continual Improvement: Wastewater & Linear Infrastructure

November 2020

Overview

- Overview
- Proposed Consolidated Linear Infrastructure Permissions Approach Framework
- CSA Standards
- How to leverage DWQMS / experience
- Q&A

Overview

Municipal Drinking Water Licensing Program

Requirements for a Licence

- Drinking Water Works Permit
- Permit to Take Water
- Accepted Operational Plan
- Accredited Operating Authority
- Approved Financial Plan

Five Year Renewal Cycle

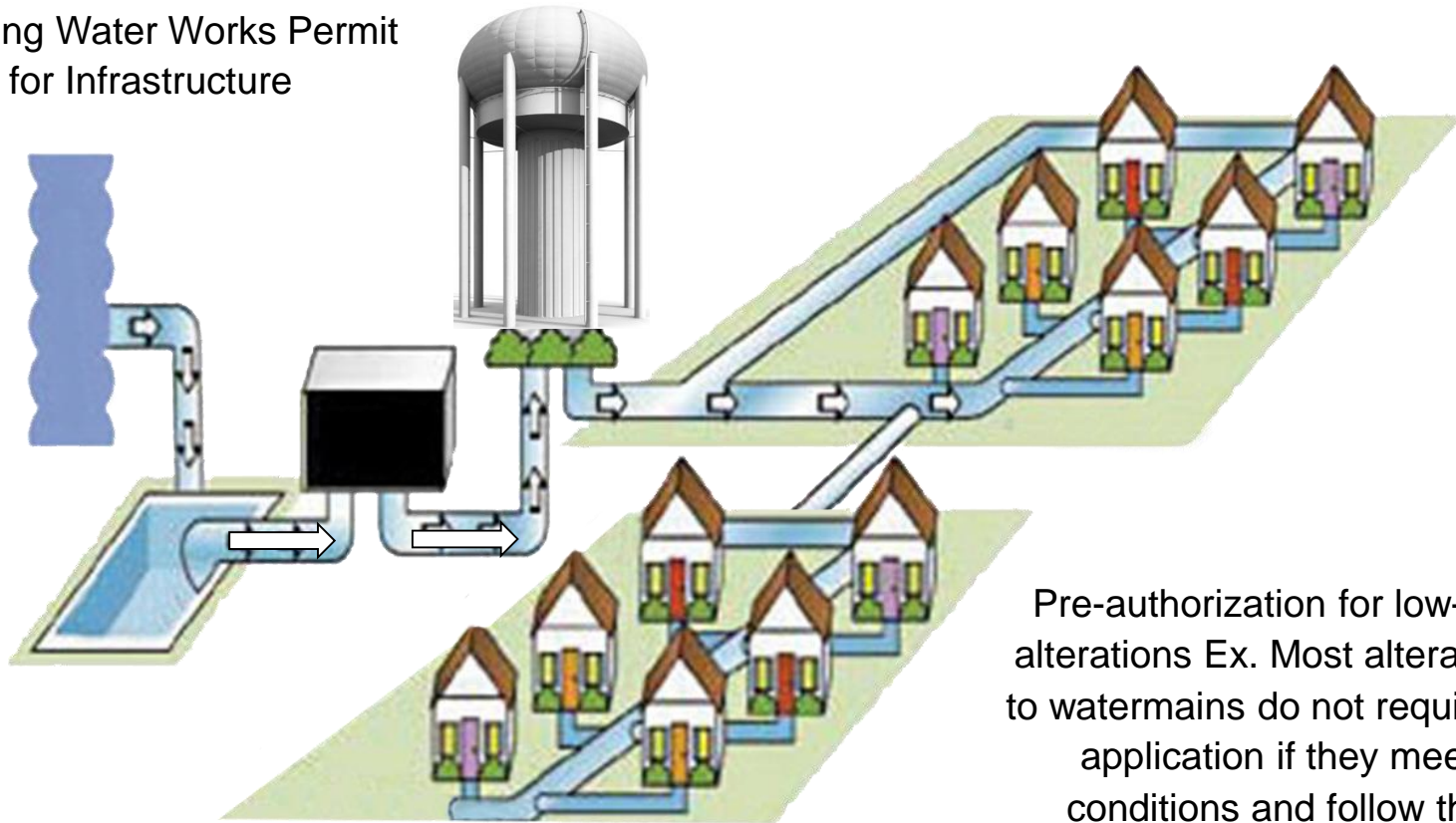
- All conditions in the licence and permit refreshed
- Ensures system description matches current works
- Confirmation that treatment is still adequate and meets current provincial standards

Preauthorized Alterations

- Low risk, routine alterations are pre-authorized
- Applications for amendment are for complex or high-risk alterations
- rePreauthorization documentation requirements are reviewed at annual compliance inspection

Municipal Drinking Water Licence and Permit

Drinking Water Works Permit
for Infrastructure



Municipal Drinking Water Licence
for Operational Requirements

Pre-authorization for low-risk alterations Ex. Most alterations to watermains do not require an application if they meet conditions and follow the *Watermain Disinfection Procedure*

Proposed Consolidated Linear Infrastructure Permissions Approach

Proposed Consolidated Linear Infrastructure Permissions Approach

Current Sewage/Stormwater Program Framework

- High volume of approvals for low-risk, routine alterations
- Outdated Conditions for a large number of ECAs
- Overlapping approval requirements for same set of works
- Fragmented picture of municipal sewage and stormwater systems

Proposed Consolidated Linear Infrastructure Permissions Approach

A consolidated multi-media approval for municipal linear infrastructure:

- One ECA for Stormwater management works
- One ECA for Sanitary collection system
- Policy proposal posting on the Environmental Registry July 8th – September 6, 2020

Proposed Consolidated Linear Infrastructure Permissions Approach

Three Key Components

New ECA Templates

- Introduce a standard format and standard conditions
- Include new preauthorization conditions

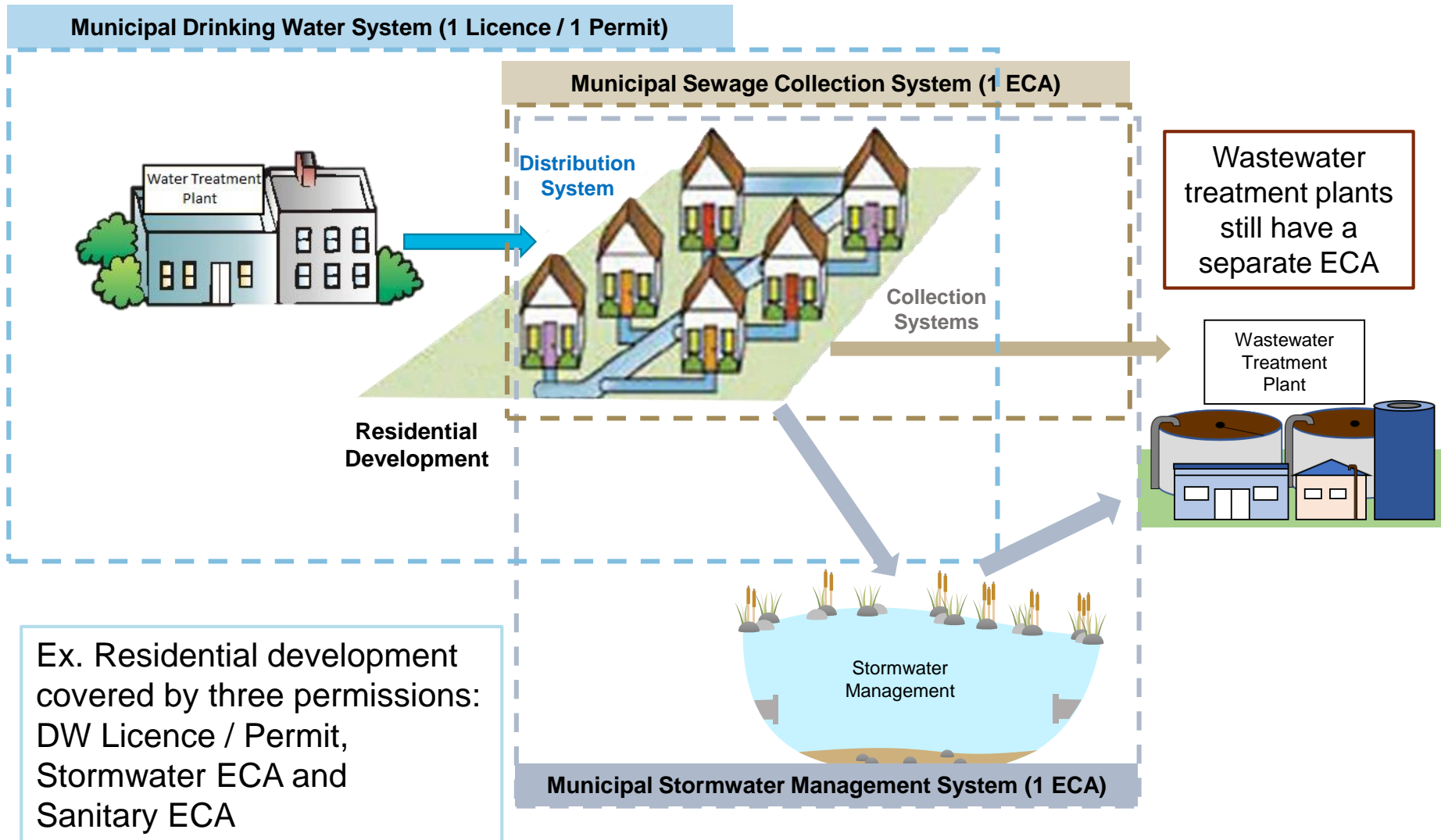
New Design Criteria

- When followed, enables alteration to the works without a separate approval
- For sanitary and some types of storm collection systems
- Includes clear design specifications and new monitoring and reporting requirements for combined sewer overflows and bypasses

Prescribed Persons Regulation O. Reg. 208/19

- Enables developers to make alterations to a municipality's sewage system without a separate approval
- Requires municipalities to approve alterations prior to taking ownership

Proposed Consolidated Linear Infrastructure Permissions Approach



Proposed Consolidated Linear Infrastructure Permissions Approach

The new proposed permissions approach will:

Reduce burden through new pre-authorization conditions

- Will eliminate the need to multiple separate applications from municipalities and developers if:
 - Specific conditions are met
 - Design Criteria is followed

Improve consistency

- Using standard conditions across Ontario for system design, construction and operation

Proposed Consolidated Linear Infrastructure Permissions Approach

The new proposed permissions approach will:

Provide a holistic picture of works

- For informed policy and decision making

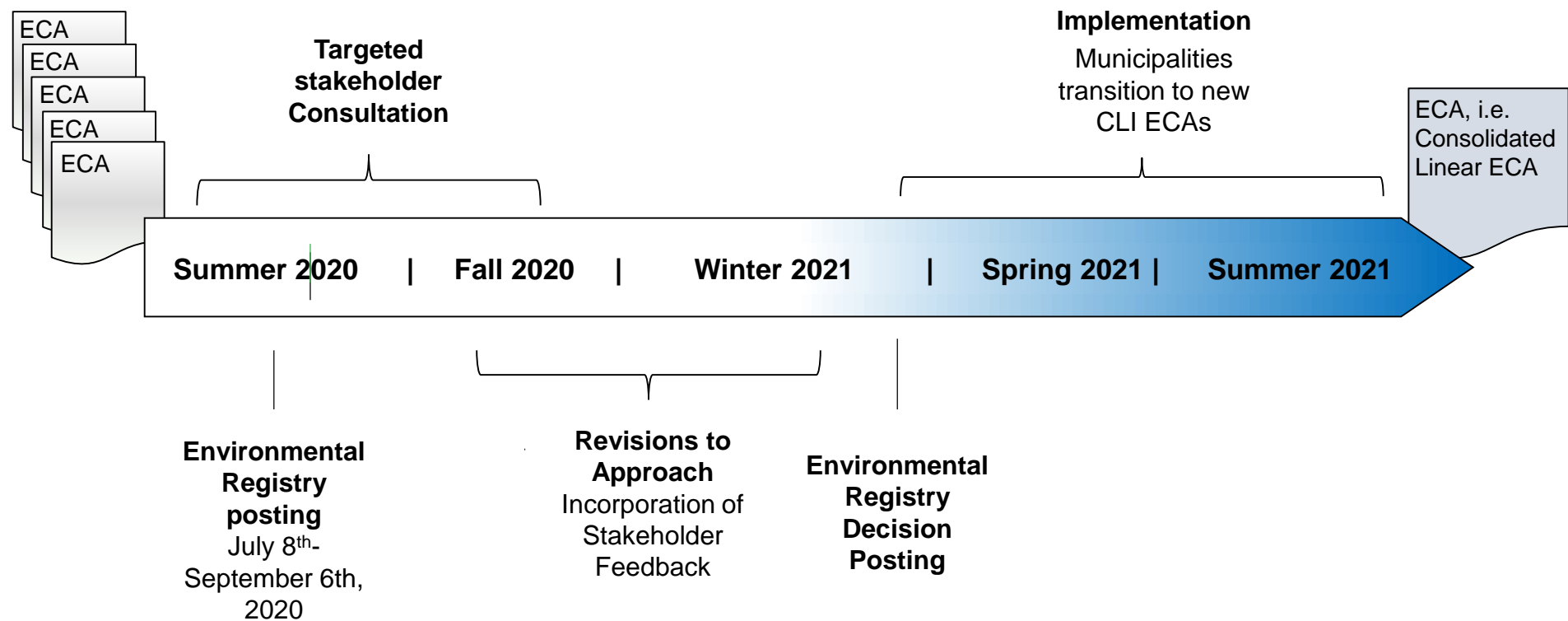
Enhance environmental protection

- Updated ECA terms and conditions

Higher risk alterations require an application for approval

- Those that do not meet preauthorization conditions, or follow the Design Criteria
- Issued through a Schedule C amendment similar to DWWP amendments

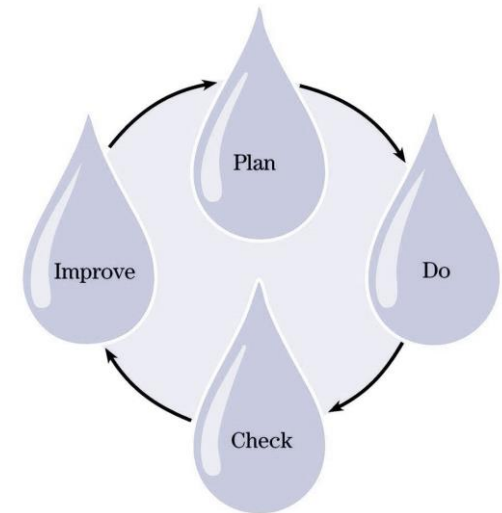
Proposed Consolidated Linear Infrastructure Permissions Approach: Anticipated Timelines



CSA Standards

CSA Management Standards: Stormwater and Wastewater

- Management standards under development with the Canadian Standards Association (CSA Group)
- Standards are NOT intended to replace the regulatory/permissions framework
- Standards will be voluntary
- Standards will be scalable
- Based on existing management standards e.g. ISO 14001 Environmental Management Systems and the Drinking Water Quality Management Standard



CSA Management Standard for Stormwater: *CSA W211*

The standard will focus on:

- Key policies/procedures needed for effective management of stormwater systems
- Identifying and mitigating public safety, environmental, and economic risks using proactive/preventative management strategies
- Establishing and documenting management procedures
- Identifying roles and responsibilities
- Ongoing continual improvement
- Encouraging communication and awareness with neighbouring municipalities to facilitate management of adjacent systems
- Public review scheduled for January 2021

[More information:](https://www.watercanada.net/feature/setting-a-new-management-standard-for-stormwater-systems/)

<https://www.watercanada.net/feature/setting-a-new-management-standard-for-stormwater-systems/>

CSA Management Standard for Stormwater: *CSA W211*

Expected to Address:

Consistency in oversight

- Confusion over roles and responsibilities of jurisdictions issues with joint oversight
- Issues with joint oversight

Aging infrastructure

- Urban areas with population growth and combined sewers

Increased sediments & pollutants entering surrounding watersheds

Lack of consistency in stormwater management methodologies

Incidence of flooding

- Increase in irregular rain-fall events
- Flood mitigation and resiliency

CSA Management Standard for Wastewater

Background

- Based on the Drinking Water Quality Management Standard and ISO 14001
- Scope includes municipal operations of sanitary wastewater collection, treatment and disposal systems

Benefits of a Wastewater Management Standard

- Municipalities are already experienced in DWQMS
- Some have already adopted elements of the DWQMS or ISO 14001 for wastewater systems
- Have a single standard will provide consistency, direction and improvements for these municipalities



How to Leverage DWQMS / Experience

Benefits of Using Management Systems for Drinking Water, Stormwater and Sanitary Systems

Clarify responsibilities

- Improve accountability within levels of organization or between organizations

Improve compliance outcomes

- Well documented procedures ensure legislative requirements are followed correctly

Identify efficiencies/cost savings

- Alignment of construction projects

Benefits of Using Management Systems for Drinking Water, Stormwater and Sanitary Systems

Alignment of Risk Assessment and Infrastructure Review

- Consistency in procedures for all systems
- Use to inform asset management planning
- See the “big picture”

Improves communication to management/council

- Regular channels open for communications to management for all systems
- Tool to convey risk assessment outcomes, and opportunities for continual improvement

Facilitates Management of Change

- Clear procedures improve outcomes when transitioning to new legislative requirements, policy's or procedures

Benefits of Using Management Systems for Drinking Water, Stormwater and Sanitary Systems

Environmental Protection

- Improved system operation, accountability, spill responses, other emergency procedures
- Risk assessment lens applied to all systems

Continual Improvement

- Extends continual improvement processes to other areas within the municipality

Leverage DWQMS / Experience

In-House Expertise

- Already have existing quality management expertise
- Municipalities with joint drinking water and wastewater services sections already have operational staff with QMS experience

Leverage DWQMS / Experience

Common procedures

- Documentation Requirements for Pre-authorization: Director Notifications, Forms 1, 2 and 3 and associated decision making processes
- Streamlined reporting (to management / council); management review (DWQMS) and communicating 'to owner'
- Pipes: sewer, stormwater and watermain – efficiencies for new development projects
- Opportunities for cross-training for similar procedures
- Aligning risk-assessment and infrastructure review, asset management planning activities to find efficiencies and interdependencies

Leverage DWQMS / Experience

Buy in from Council and Management

- Use DWQMS successes as a business case to move to a new voluntary QMS model for other systems

Provide Feedback

- Use existing experience to provide feedback on draft management standards as they are posted for comment during their development

Support Permissions / Compliance

- Similar procedures, application process, MECP permission and compliance groups for both water and wastewater

Summary

Things to Remember...

- New management standards are not mandatory
 - Meant to be voluntary tools at your disposal
- Highlight where efficiencies may exist
- Not a one-size-fits all solution
 - Standards are scalable/flexible – Do what works for your system
- Use lesson's learned from DWQMS implementation to help wastewater and stormwater management sections if they decide to implement

Questions?

MECP General Mailbox
e-mail: mdwlp@ontario.ca

Ann Darby
Tel: 437-885-6117
Ann.Darby@Ontario.ca

Amanda Boyden
Tel: 437-833-3369
Amanda.Boyden@Ontario.ca

